

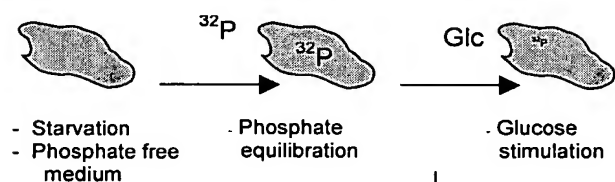
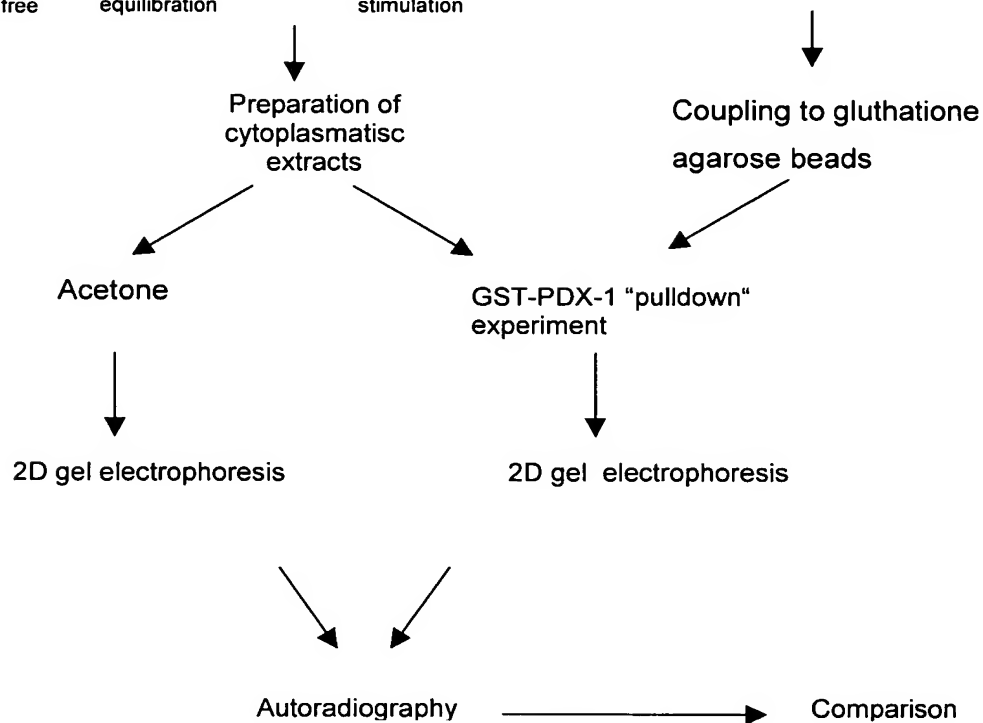
Fig. 1**Labelling of glucose-sensitive MIN6 cells****Expression of GST-PDX1**

Fig. 2

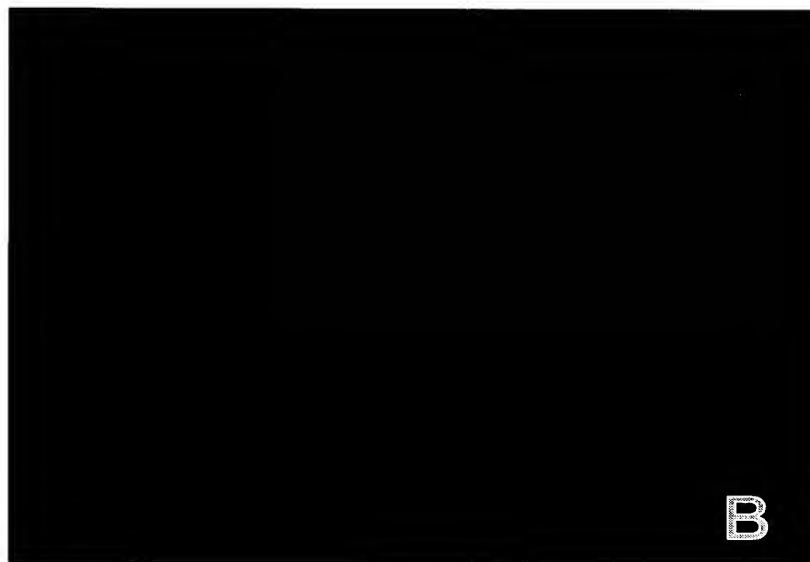
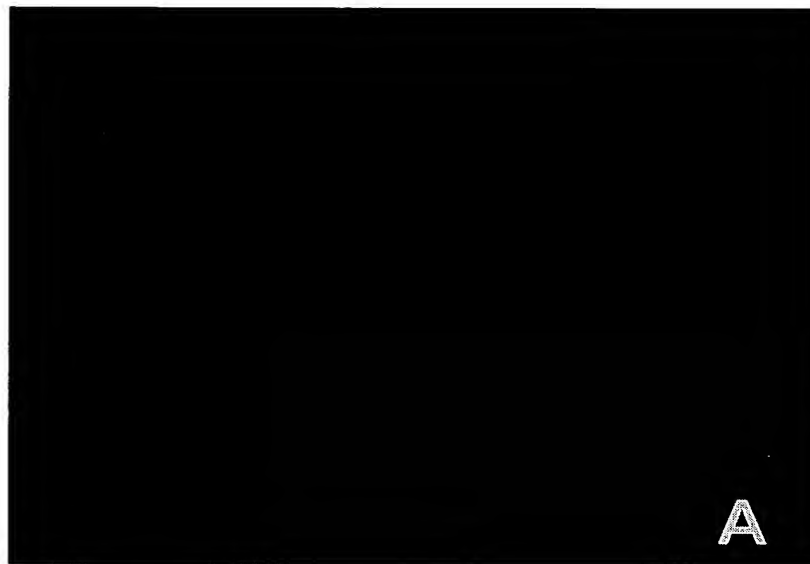


Fig. 3

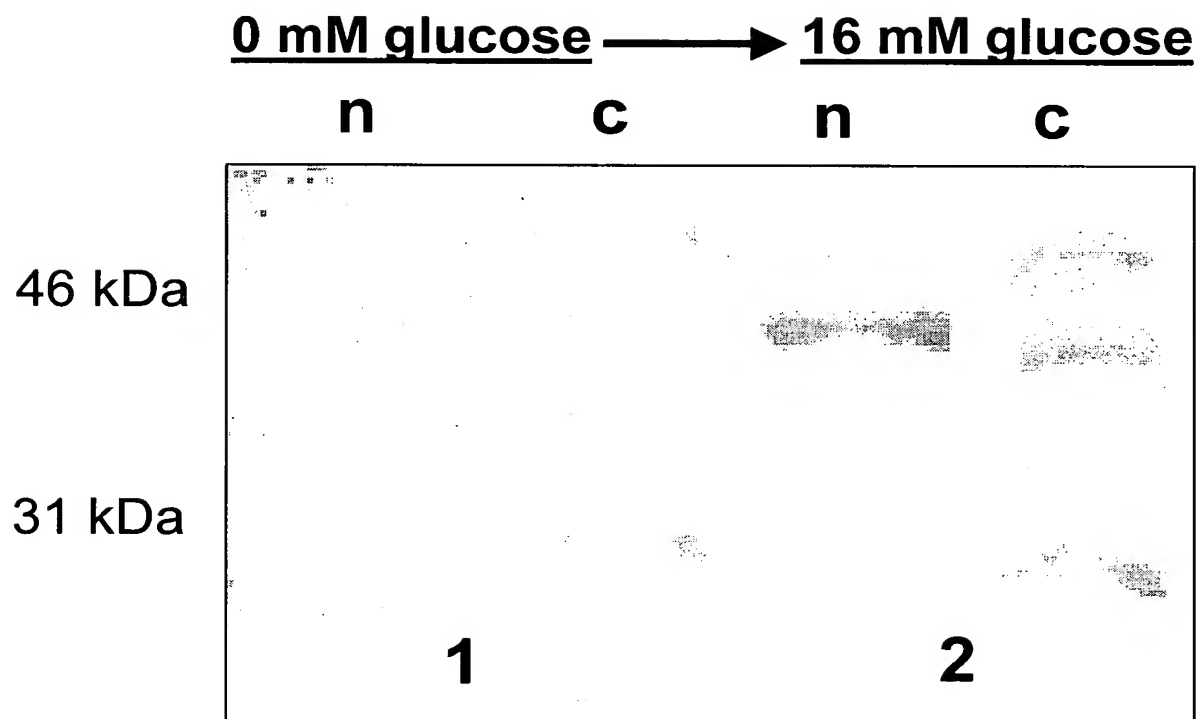


Fig. 4

75 kDa
60 kDa

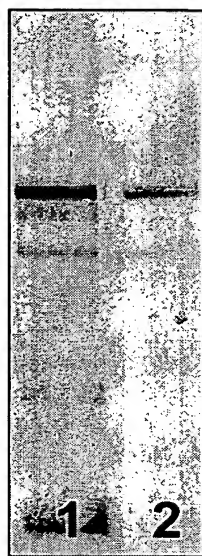


Fig. 5

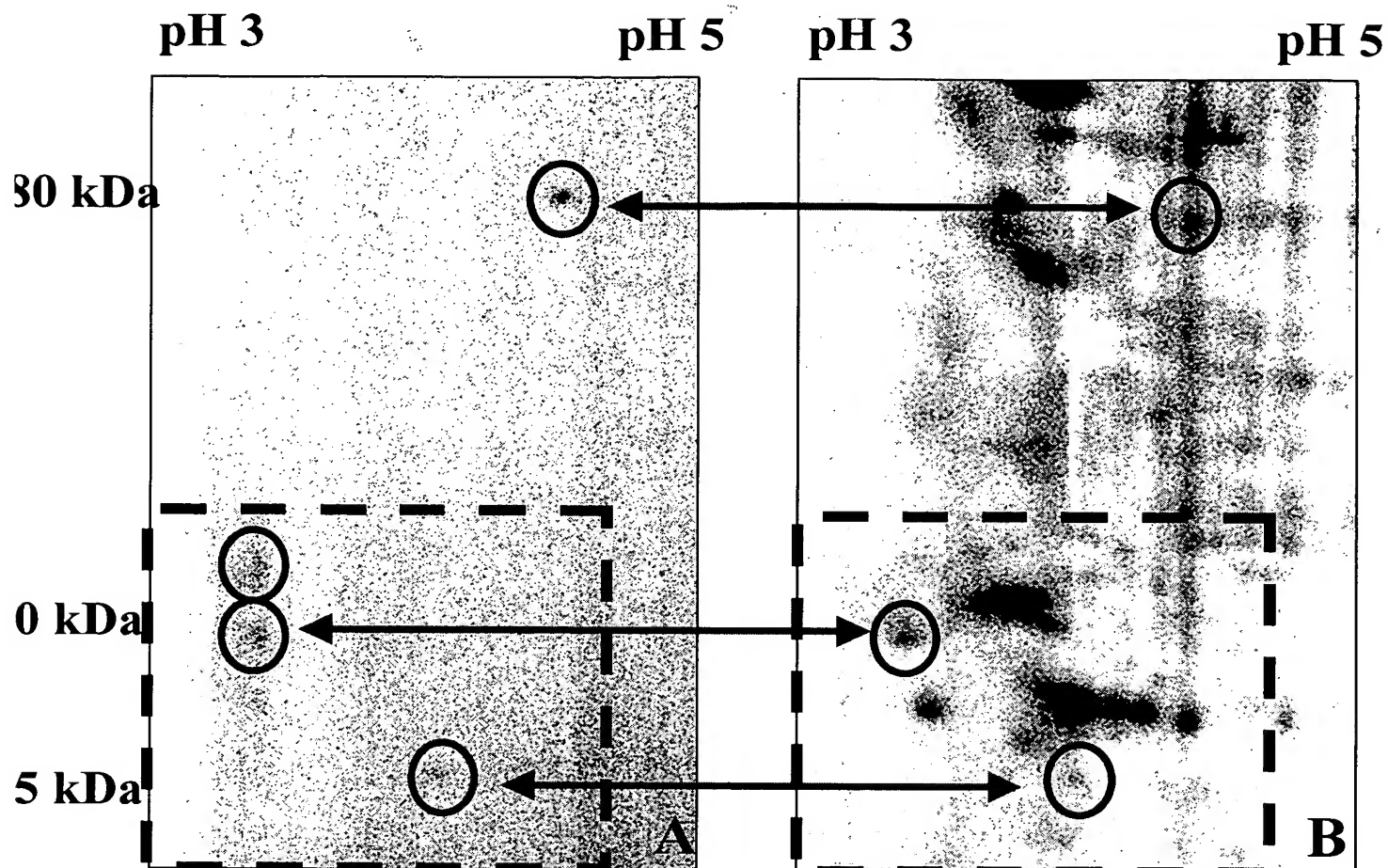


Fig. 6

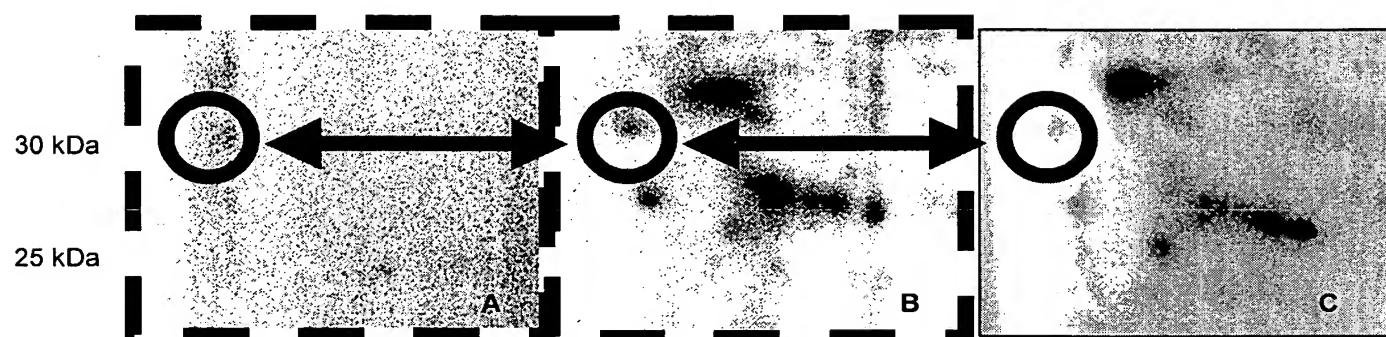


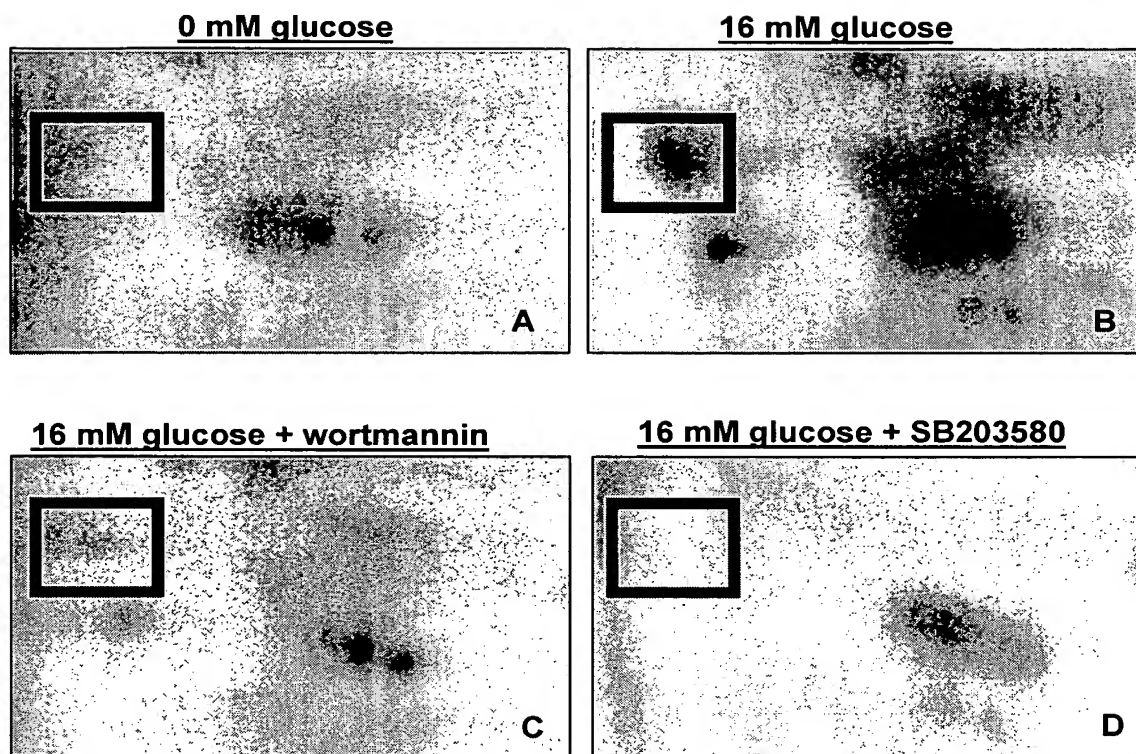
Figure 7

Figure 8

<i>Rank</i>	<i>MOWSE Score</i>	<i>#(%) Mass match</i>	<i>MW (protein) MW (Da)/pI</i>	<i>Name of protein</i>
1	615	7/30 (23%)	29174.1/4.63	(BC001440) tyrosine 3- monooxygenase/tryptophan 5- monooxygenase activation protein, epsilon polypeptide (14-3-3 epsilon)

A

30 kDa

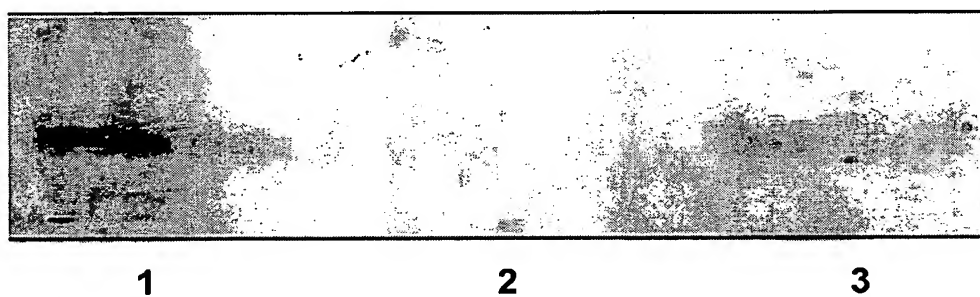


Figure 9:

MNGEEQYYAATQLYKDPCAFQRGPAPEFSASPPACLYMGRQPPP
PPPHFFPGALGALEQGSPPDISPYEVPPLADDPVAHLHHHLPAQLALPHPPAGPFPE
GAEPGVLEEPNRVQLPFPWMKSTKAHAWKGQWAGGAYAAEPEENKRTRTAYTRAQLE
LEKEFLFNKYISRPRRVELAVMLNLTERHIKIWFQNRMRKWKKEEDKKRGGGTAVGGG
GVAEPEQDCAVTSGEELLALPPPPPPGAVPPAAPVAAREGRLPPGLSASPQPSSVAP
RRPQEPR

PDX-1 amino acid sequence;

283 amino acids

Figure 10:

```
atgaac  ggcgaggagc  agtactacgc  ggccacgcag  ctttacaagg
acctatgcgc  gttccagcga  ggcccggcgc  cggagttcag  cgccagcccc  cctgcgtgcc
tgtacatggg  ccgccagccc  ccgccgcgcg  cgccgcaccc  gttccctggc  gccctgggcg
cgctggagca  gggcagcccc  ccggacatct  ccccgtaaga  ggtgcccccc  ctccgccgacg
accccgcggt  ggcgcacctt  caccaccacc  tcccggtcga  gctcgcgctc  ccccaccgcg
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agctgccttt  cccatggatg  aagtctacca  aagctcacgc  gtggaaaggc  cagtgggcag
gcggcgcccta  cgctgcggag  ccggaggaga  acaagcggac  gcgcacggcc  tacacgcgcg
cacagctgct  agagctggag  aaggagttcc  tattcaacaa  gtacatctca  cggccgcgcc
gggtggagct  ggctgtcatg  ttgaacttga  ccgagagaca  catcaagatc  tggttccaaa
accgccgcat  gaagtggaaa  aaggaggagg  acaagaagcg  cggcggcggg  acagctgtcg
ggggtggcgg  ggtcgcggag  cctgagcagg  actgcgcggt  gacctccggc  gaggagcttc
tggcgctgcc  gccgccgccg  cccccggag  gtgctgtgcc  gcccgctgcc  cccgttgccg
cccagagagg  ccgcctgccg  cctggcctta  gcgcgtcgcc  acagccctcc  agcgtcgcgc
ctcggcgggc  gcaggaacca  cgatga
```

nucleotide sequence encoding PDX-1;
852 nucleotides; nucleotides 850-852: stop codon

Figure 11:

MDDREDLVYQAKLAEQAERYDEMVESMKKVAGMDVELTVEERNL
LSVAYKNVIGARRASWRIISSIEQKEENKGGEDKLMIREYRQMVETELKLICCDILD
VLDKHLIPAANTGESKVFYYKMGDYHRYLAEFATGNDRKEAAENSLVAYKAASDIAM
TELPPTHPIRLGLALNFSVFYYEILNSPDRACRLAKAAFDDAIAELDTLSEESYKDST
LIMQLLRDNLTLWTSDMQGDGEEQNKEALQDVEDENQ

Amino acid sequence of 14-3-3 epsilon;
255 amino acids

Figure 12:

```
atggatgata gagaggatct ggtgtaccag gcgaagctgg ccgagcaggc tgagcgatac
gacgaaatgg tggagtcaat gaagaaagta gcagggatgg atgtggagct gacagttgaa
gaaagaaacc tcctatctgt tgcataaag aatgtgattg gagctagaag agcctcctgg
agaataatca gcagcattga acagaaagaa gaaaacaagg gaggagaaga caagctaaaa
atgattcggg aatatcggca aatggttgag actgagctaa agttaatctg ttgtgacatt
ctggatgtac tggacaaaaca cctcattcca gcagctaaca ctggcgagtc caaggttttc
tattataaaa tgaaagggga ctaccacagg tatctggcag aatttgccac aggaaacgac
aggaaggagg ctgcggagaa cagcctagtg gcttataaag ctgctagtga tattgcaatg
acagaacttc caccaacgca tcctattcgc ttaggtcttg ctctcaattt ttccgtattc
tactacgaaa ttcttaattc ccctgaccgt gcctgcaggt tggcaaaaagc agcttttgat
gatgcaattg cagaactgga tacgctgagt gaagaaagct ataaggactc tacacttadc
atgcagttgt tacgtgataa tctgacacta tggacttcag acatgcaggg tgacggtgaa
gagcagaata aagaagcgcg gcaggacgtg gaagacgaaa atcagtga
```

nucleotide sequence encoding 14-3-3 epsilon;
768 nucleotides; nucleotides 766-768: stop codon

Figure 13:

a)

MPGPAAGSRARVYAEVNSLRSEYWDYEAHVPSWGNQDDYQLVR
LGRGKYSEVFEAINITNNEVVVKILKPVKKKKIKREVKILENLRGGTNI IKLIDTV
KDPVSKTPALVFEYINNTDFKQLYQILTDFDIRFYMYELLKALDYCHSKGIMHRDVKP
HNV MIDHQKKRLRIDWGLAEFYHPAQEYNVRVASRYFKGPELLVDYQMYDYSLDMWS
LGCMLASMI FRREPFFHGDNDYDQLVRIAKVLGTEELYGYLK KYHIDLDPHFNDILGQ
HSRKRWFENFIHSENRLVLSPEALDLLDKLLRYDHQORLTAKAMEHPYFYFPVVKESQ
PCADNAVLSSGLTAAR

Amino acid sequence of CK II alpha' subunit;
350 amino acids

b)

MSGPVPSRARVYTDVNTHRPREYWDYESHVVEWGNQDDYQLVRK
LGRGKYSEVFEAINITNNEKVVKILKPVKKKKIKREIKILENLRGGPNII TLADIVK
DPVSRTPALVFEHVNNNTDFKQLYQTLTDYDIRFYMYEILKALDYCHSMGIMHRDVKPH
NV MIDHEHRKRLRIDWGLAEFYHPGQEYNVRVASRYFKGPELLVDYQMYDYSLDMWSL
GCMLASMI FRKEPFFHGDNDYDQLVRIAKVLGTEDLYDYIDKYNIELDPRFNDILGRH
SRKRWERFVHSENQHLVLSPEALDFLDKLLRYDHQSRLTAREAMEHPYFYTVVKDQARM
GSSSMPGGSTPVSSANMMSGISSVPTPSPLGPLAGSPVIAAANPLGMPVPAAAGAQQ

Amino acid sequence of CK II alpha subunit;
391 amino acids

c)

MSSSEEVSWISWFCGLRGNEFFCEVDEDYIQDKFNLTGLNEQVP
HYRQALDMILDLEPDEELEDNPNQSDLIEQAEMLYGLIHARYILTNRGIAQM LEKYQ
QGDFGYCPRVYCENQPM LPIGLSDIPGEAMVKLYCPKCMDVYTPKSSRHHHTDGAYFG
TGFPHMLFMVHPEYRPKR PANQFVPRLYGFKIHPMAYQLQLQAASNEKSPVK TIR

Amino acid sequence of CK II beta subunit;
215 amino acids

Figure 14:**a)**

```

                                atgcccg gcccggccgc
gggcagcagg gcccgggtct acgccgaggt gaacagtctg aggagccgcg agtactggga
ctacgagggt caggtcccga gctggggtaa tcaagatgat taccaactgg ttcgaaaact
tggtcgggga aaatatagtg aagtatttga ggccattaat atcaccaaca atgagagagt
ggttgtaaaa atcctgaagc cagtgaagaa aaagaagata aaacgagagg ttaagattct
ggagaacctt cgtggtggaa caaatatcat taagctgatt gacactgtaa aggaccccgt
gtcaaagaca ccagcttttg tatttgaata tatcaataat acagatttta agcaactcta
ccagatcctg acagactttg atatccggtt ttatatgtat gaactactta aagctctgga
ttactgccac agcaaggga tcatgcacag ggatgtgaaa cctcacaatg tcatgataga
tcaccaacag aaaaagctgc gactgataga ttggggctctg gcagaattct atcatcctgc
tcaggagtag aatgttctgt tagcctcaag gtacttcaag ggaccagagc tcctcgtgga
ctatcagatg tatgattata gcttggacat gtggagtttg ggctgtatgt tagcaagcat
gatctttcga aggaacccat tcttccatgg acaggacaac tatgaccagc ttgttcgcac
tgccaagggt ctgggtacag aagaactgta tgggtatctg aagaagtatc acatagacct
agatccacac ttcaacgata tcctgggaca acattcacgg aaacgctggg aaaactttat
ccatagttag aacagacacc ttgtcagccc tgaggcccta gatcttctgg acaaacttct
gcgatacgac catcaacaga gactgactgc caaagaggcc atggagcacc catacttcta
ccctgtggtg aaggagcagt cccagccttg tgcagacaat gctgtgcttt ccagtgggtct
cacggcagca cgatga

```

nucleotide sequence encoding CK II alpha';
 1053 nucleotides; nucleotides 1051-1053: stopcodon

b)

```

                                at gtcgggaccc gtgccaagca gggccagagt
ttacacagat gttaatacac acagacctcg agaatactgg gattacgagt cacatgtggt
ggaatgggga aatcaagatg actaccagct gggtcgaaaa ttaggccgag gtaaatcacag
tgaagtattt gaagccatca acatcacaaa taatgaaaaa gttgttgtaa aaattctcaa
gccagtaaaa aagaagaaaa ttaagcgtga aataaagatt ttggagaatt tgagaggagg
tccaacatc atcacactgg cagacattgt aaaagaccct gtgtcacgaa cccccgcctt
ggtttttgaa cactgaaaca acacagactt caagcaattg taccagacgt taacagacta
tgatatccga ttttacatgt atgagattct gaaggccctg gattattgtc acagcatggg
aattatgcac agagatgtca agccccataa tgtcatgatt gatcatgagc acagaaagct
acgactaata gactggggtt tggctgagtt ttatcatcct ggccaagaat ataatgtccg
agttgcttcc cgatacttca aaggctcctga gctacttgta gactatcaga tgtacgatta
tagtttggat atgtggagtt tgggttgat gctggcaagt atgatctttc ggaaggagcc
atttttccat ggacatgaca attatgatca gttggtgagg atagccaagg ttctggggac
agaagattta tatgactata ttgacaaata caacattgaa ttagatccac gtttcaatga
tatcttgggc agacactctc gaaagcgatg ggaacgcttt gtccacagtg aaaatcagca
ccttgtcagc cctgaggcct tggatttcct ggacaaaactg ctgcgatatg accaccagtc
acggcttact gcaagagagg caatggagca cccctatttc tacactgttg tgaaggacca
ggctcgaatg ggttcatcta gcatgccagg gggcagtagc cccgtcagca gcgccaatat
gatgtcaggg atttcttcag tgccaacccc ttcacccctt ggacctctgg caggctcacc
agtattgct gctgccaacc ccttgggat gcctgttcca gctgccgctg gcgctcagca
gtaacggccc

```

nucleotide sequence encoding CK II alpha;
 1182 nucleotides; nucleotides 1180-1182: stop codon

c)

```
          atgagca gctcagagga ggtgtcctgg atttcctggt tctgtgggct
ccgtggcaat gaattcttct gtgaagtgga tgaagactac atccaggaca aatttaatct
tactggactc aatgagcagg tccctcacta tcgacaagct ctagacatga tcttggacct
ggagcctgat gaagaactgg aagacaaccc caaccagagt gacctgattg agcaggcagc
cgagatgctt tatggattga tccacgcccg ctacatcctt accaaccgtg gcatcgccca
gatgttggaa aagtaccagc aaggagactt tggttactgt cctcgtgtgt actgtgagaa
ccagccaatg cttcccattg gcctttcaga catcccaggt gaagccatgg tgaagctcta
ctgccccaa gtcattgatg tgtacacacc caagtcatca agacaccatc acacggatgg
cgcctacttc ggcactgggt tccctcacat gctcttcatt gtgcatcccg agtaccggcc
caagagacct gccaaaccagt ttgtgcccag gctctacggt ttcaagatcc atccgatggc
ctaccagctg cagctccaag ccgccagcaa cttcaagagc ccagtcaaga cgattcgctg
a
```

nucleotide sequence encoding CK II beta;
648 nucleotides; nucleotides 646-648: stop codon

Figure 15:

MPAAKKQKLSSDENSNPESGDENDDAVSIESGTINTERPDTPTN
TPNAPGRKSWGKGGKWSKKCKYSFKCVNSLKEDHNQPLFGVQFNWHSKEGDPLVFATV
GSNRVTLYECHSQGEIRLLQSYVDADADENFYTCAWTYDSNTSHPLLAVAGSRGIIRI
INPITMQCIKHVVGHNAINELKFHPRDPNLLSVSKDHALRLWNIQTDTLVAFGGV
EGHRDEVLSADYDLLGEKIMSCGMDHSLKLWRINSKRMMNAIKESYDYNPNKTNRPFI
SQKIHFPDFSTRDIHRNYVDCVRWLGDILSKSCENAIVCWKPGKMEDDIDKIKPSES
NVTILGRFDYSQCDIWYMRFSMDFWQKMLALGNQVGKLYVWDLEVEDPHKAKCTTLTH
HKCGAAIRQTSFSRDSSILIAVCDDASIWRWDRLR

Amino acid sequence of the short EED isoform;
427 amino acids

Figure 16:

```

                                atgcct gggccaaga agcagaagct
gagcagtgac gagaacagca atccagaact ctctggagac gagaatgatg acgctgtcag
tatagaaagt ggtacaaaca ctgaacgccc tgatacacct acaaacacgc caaatgcacc
tggaaggaaa agttggggaa agggaaaatg gaagtcaaag aaatgcaa atcttttcaa
atgtgtaaat agtctcaagg aagatcataa ccaaccattg tttggagttc agtttaactg
gcacagtaaa gaaggagatc cattagtgtt tgcaactgta ggaagcaaca gagttacctt
gtatgaatgt cattcacaag gagaaatccg gttgttgcaa tcttacgtgg atgctgatgc
tgatgaaaac ttttacactt gtgcatggac ctatgatagc aatacgagcc atcctctgct
ggctgtagct ggatctagag gcataattag gataataaat cctataacaa tgcagtgtat
aaagcactat gttggccatg gaaatgctat caatgagctg aaattccatc caagagatcc
aaatcttctc ctgtcagtaa gtaaagatca tgctttacga ttatggaata tccagacgga
cactctggtg gcaatatttg gaggcgtaga agggcacaga gatgaagttc taagtgtga
ttatgatctt ttgggtgaaa aaataatgtc ctgtggtatg gatcattctc ttaaactttg
gaggatcaat tcaaagagaa tgatgaatgc aattaaggaa tcttatgatt ataatccaaa
taaaactaac aggccattta tttctcagaa aatccatttt cctgattttt ctaccagaga
catacatagg aattatgttg attgtgtgcg atggttaggc gatttgatac tttctaagtc
ttgtgaaaat gccattgtgt gctggaaacc tggcaagatg gaagatgata tagataaaat
taaaccacgt gaatctaata tgactattct tgggcgattt gattacagcc agtgtgacat
ttggtacatg aggttttcta tggatttctg gcaaaagatg cttgcattgg gcaatcaagt
tggcaaactt tatgtttggg atttagaagt agaagatcct cataaagcca aatgtacaac
actgactcat cataaatgtg gtgctgctat tcgacaaacc agtttttagca gggatagcag
cattcttata gctgtttgtg atgatgccag tatttggcgc tgggatcgac ttcgataa
```

nucleotide sequence encoding the short EED isoform;
1284 nucleotides; nucleotides 1282-1284: stop codon

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